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TARIFF COMMISSION

GOVERNMENT OF INDIA

REPORT

On the Continuance of Protection to the Grinding Wheels Industry

BOMBAY, 1959

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DR. RAMA VARMA

1—7 T. C. Bombay/59

GOVERNMENT OF INDIA

MINISTRY OF COMMERCE AND INDUSTRY

RESOLUTION

Tariffs

New Delhi, the 26th November, 1959.

No. 16(1)-T.R./59.—The Tariff Commission has submitted its Report on the continuance of protection to the Grinding Wheels Industry on the basis of an inquiry undertaken by it under Sections 11(e) and 13 of the Tariff Commission Act, 1951. Its recommendations are as follows :—

(1) Protection granted to the grinding wheels industry need not be continued beyond 31st December, 1959.

(2) The concession at present enjoyed by the grinding wheels industry of importing synthetic abrasive grains duty-free should be extended for a further period until abrasive grains of suitable quality are indigenously produced in sufficient quantity and at a reasonable price.

2. Government accept recommendation (1) and necessary legislation will be undertaken in due course.

3. Government have taken note of recommendation (2) and the duty concession in question will be continued for the present.

ORDER

ORDERED that a copy of the Resolution be communicated to all concerned and that it be published in the *Gazette of India.*

S. RANGANATHAN,

Secretary to the Government of India.

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REPORT ON THE CONTINUANCE OF PROTECTION TO THE GRINDING WHEELS INDUSTRY

1. Previous tariff inquiries.

1.1. The claim of the grinding wheels industry to protection has been the subject of five inquiries by the Tariff Board and the Tariff Commission till now. The protection given to the industry as ranged from prohibition of imports as the sequel to the first Report (1946) to a protective duty which has been progressively reduced from 100 per cent *ad valorem* to the present level of 25 per cent *ad valorem* The broad details of the recommendations of the Tariff Board and Tariff Commission from time to time and the action taken by Government thereon are given in paragraphs 1·1 to 1·5 of our last Report (1957).

1.2. Throughout the period of protection the industry has received the concession of importing synthetic abrasive grains free of duty.

Present inquiry

2. The protection granted to the industry on our recommendations in the Report of 1957 is due to expire on 31st December 1959. The present inquiry has been undertaken under section 11 (e) read with section 13 of the Tariff Commission Act, 1951, whereby the Commission is empowered to investigate into the working of any protected industry and to make appropriate recommendations.

3. Method of inquiry

3.1. Special questionnaires were issued to manufacturers, importers and consumers. The Development Wing was requested to furnish a memorandum on the progress made by the industry since the last inquiry and its present position. The Director-General of Supplies and Disposals was addressed for information regarding the policy adopted by Government in respect of purchase of indigenous grinding wheels. A letter was issued to the Indian Standard Institution regarding the progress made in the formulation of standard specifications for grinding wheels. Collectors of Customs at the principal ports were requested to furnish c.i.f. prices and landed costs of imported grinding wheels. Information regarding f.o.b. prices of grinding wheels was sought from the High Commission of India in the U. K. and the Indian Embassy in West Germany. A press note was issued on 1st May 1959 inviting firms, associations and persons who desired that their views should be considered by the Commission to obtain copies of the relevant questionnaires and send their replies. A list of those to whom questionnaires and letters were issued and from whom replies or memoranda have been received is given in Appendix I.

3.2. Chairman, Members and Secretary of the Commission visited the factories of certain units in the grinding wheels industry on the dates shown below :—

By whom visited	Factory visited	Date of visit
Dr. Rama Varma, Secretary	Carborundum Universa Ltd., Madras.	25th February, 1959.
Dr. S. K. Muranjan, Shri J. N. Dutta Shri R. S. Bhatt, Members.	Therman Products Co., Bombay.	16th April, 1959.
Dr. S. K. Muranjan, Member	Steel & General Mills Co. Ltd., Delhi.	5th May, 1959.
Dr. S. K. Muranjan, Shri J. N. Dutta, Members	Grindwell Abrasives Ltd., Bombay	19th May, 1959.
Shri C. Ramasubban, Chairman	Carborundum Universal Ltd., Madras.	9th June, 1959.
Dr. S. K. Muranjan, Shri J. N. Dutta, Shri R. S. Bhatt, Members.	Carborundum Universal Ltd., Madras.	23rd June, 1959.

3.3. Shri U. R. Padmanabhan, Cost Accounts Officer examined the cost of manufacture of grinding wheels at the factory of Carborundum Universal Ltd., from 4th to 15th June 1959.

3.4. A public inquiry into the industry was held on 29th June 1959 at the office of the Commission. A list of persons who attended the inquiry is given in Appendix II.

4. Recommendations of the Commission in its last Report and their implementation.

4.1. The recommendations of the Commission made in its last Report on matters other than tariffs and the extent to which they have been implemented are indicated below.

4.2. "Government should continue to permit the manufacturers of grinding wheels to import synthetic abrasive grains free of duty in sufficient quantities to meet their requirements."

Government continued the concession of duty-free imports of synthetic abrasive grains as recommended in our Report. No complaint was received by us regarding the supply of grains.

4.3. "The standard specifications for grinding wheels should be prescribed without delay."

The Indian Standards Institution has published (i) Marking System for Grinding Wheels; and (ii) Recommendations for Selection of Grinding Wheels. Specifications for Preferred Shapes and Sizes and Safety Code for Grinding Wheels are being formulated.

4.4. "Carborundum Universal Ltd. should try to develop the necessary bonding material from indigenous sources so that at a future date the Company may not have to depend on foreign sources for this raw material."

The Company informs us that it has taken steps to investigate the suitability of indigenous raw materials for the manufacture of bonds. The Company has received a licence to import the necessary capital equipment and has already placed orders for it. The question is further discussed in paragraph 8.5.

4.5. "The manufacturers of grinding wheels should endeavour to improve the quality of their products."

This subject is discussed at a subsequent stage of the Report (*vide* paragraph 9).

4.6. "Grindwell Abrasives Ltd. and Carborundum Universal Ltd. should introduce a proper system of costing by the end of 1957. By the time the Commission takes up their case for re-examination in 1959 the industry should be in a position to furnish the Commission with accurate cost data according to broad categories."

Both the manufacturers report that this recommendation has been given effect to.

Scope of the inquiry

5. At present (i) grinding wheels (a) of any thickness or bore but more than 24" in diameter or (b) of any diameter or bore but more than 9" or less than 1/32" in thickness: and (ii) diamond impregnated wheels are excluded from the scheme of protection. Grindwell Abrasives was manufacturing large sized wheels up to 36" in diameter at the time of the last inquiry. Carborundum Universal has plans for manufacture of even larger wheels up to 42" in diameter. At the public inquiry both the producers pleaded for extension of the scope of the inquiry to cover wheels up to 36" in diameter. We notice, however, that Carborundum Universal has not yet produced wheels larger than 22" in diameter. Grindwell Abrasives sold in 1958, 20.7 tons of wheels exceeding 24" in diameter which, when compared with actual imports of wheels of over 21" diameter aggregating to about 140 tons in 1957 and 72 tons in 1958 amounts to a small portion of the country's requirements of large wheels. In view of these facts, we do not consider it necessary to extend the scope of the inquiry.

Present position of the industry.

6.1. At the time of the last inquiry there were 5 units in production. Since then a sixth unit, Krishnalal Thirani and Co. Ltd., Calcutta has started production from April 1959. Of these 6 units, three are located in Bombay and one each at Calcutta, Delhi and Madras.

6.2. The names and capacity of these 6 units are given below :—

(In tons)

Name of the unit	Installed capacity estimated by the Commission in 1957	Present installed capacity
1. Grindwell Abrasives Ltd., Bombay	1,000	1,200
2. Carborundum Universal Ltd., Madras	600	1,000
3. General Abrasive Co. (Pvt.) Ltd., Bombay	120	120
4. Steel & General Mills Co. Ltd., Delhi	150	150
5. Thermal Products Co., Bombay	180	180
6. Krishnalal Thirani & Co., Ltd., Calcutta	..	240
TOTAL	2,050	2,890

Since the last inquiry the capacity of the industry has increased by about 41 per cent due to the establishment of a new unit, reassessment of the capacity of Grindwell Abrasives and the expansion of capacity at Carborundum Universal. At the public inquiry, the representative of Grindwell Abrasives again claimed a capacity of 1,330 tons but as the licensed capacity under the Industries (Development and Regulation) Act is 1,200 tons, this figure is retained. Grindwell Abrasives, Carborundum Universal and Steel and General Mills applied for licences for substantial expansion of their capacity. The first two have been advised to revise and submit their applications at a later date while the third has been asked to renew the application after arranging for foreign collaboration.

6.3.1. *Grindwell Abrasives Ltd.*—Since our last inquiry the company has invested large amounts in modernising its plant and lay-out. It has installed up-to-date presses, drying chambers, dynamic balancing machines, semi-automatic speed testing equipment, etc. It has also installed modern equipment for the issue of abrasive grains and bonding materials. A chamber to prepare resinoid bonds under conditions of controlled temperature is under erection. In 1958 the company availed itself of the services of an expert from U.S.A. under the T.C.M. Aid for a period of 6 months. On account of the character of market demand, the company has found it necessary to widen still further its range of manufacture.

6.3.2. *Carborundum Universal Ltd.*—The company has set up a new Grinding Test Laboratory. It has installed presses and acquired moulds to manufacture wheels between the ranges of 22″ and 36″ in diameter and has plans to acquire moulds to extend its production to wheels of 42″ in diameter.

6.3.3. *General Abrasive Co. (Private) Ltd.*—This is a private limited company with a capital of Rs. 1.04 lakhs. Its production is confined to vitrified types of wheels falling largely within the protected range.

6.3.4. *Steel and General Mills Co. Ltd.*—This company has a grinding wheel factory at Sonepat and a rolling mill in Delhi. It produces its own bonds for which it claims to have the necessary equipment.

6.3.5. *Thermal Products Co.*—This is a proprietory concern which at present manufactures wheels up to 12″ in diameter. It obtains its bonding material from outside.

6.3.6. *Krishnalal Thirani and Co. Ltd.*—This is a public limited company with an authorised capital of Rs. 20 lakhs and paid-up capital of Rs. 9 lakhs. It has entered into an agreement with K. K. Keihin Kogyosho, Tokyo to obtain technical know-how and has on its staff a Japanese technician attached to its laboratory. Its proposed range of production is limited to vitrified grinding wheels up to 24″ in diameter.

6.4. The production of grinding wheels by each individual producer and by the industry is given below :

(In tons)

Name of the unit	1956	1957	1958	1959 (Jan.-Apr.)
1. Grindwell Abrasives Ltd., Bombay . .	881·90	965·99	783·36	154·65
2. Carborundum University Ltd., Madras .	224·00	468·49	404·77	118·83
3. General Abrasive Co. (Pvt.) Ltd., Bombay.	20·50	20·39	28·36	9·36
4. Steel & General Mills Co. Ltd., Delhi .	6·00	20·68	6·27	3·58
5. Thermal Products Co., Bombay . .	0·55	29·08	45·23	20·00
TOTAL .	1,132·95	1,504·63	1,267·99	306·42

It will be observed that the output of the industry attained its highest level in 1957 and suffered a decline in 1958. The setback is to be ascribed to the shortage and difficulties of obtaining steel by the engineering industries and the market shift of demand in favour of precision and specialised wheels.

7. Domestic demand

7.1. In our Report of 1957 we estimated the then current demand at 1,500 tons. The future demand which was estimated on the basis of the ratio of steel consumption to requirements of grinding wheels was expected to reach 2,500 tons in 1960. It is clear that the expected expansion in consumption has not materialised largely on account of shortage of steel supplies to engineering industries.

7.2. During the present inquiry, we received varying estimates of demand from different quarters. The Development Wing has estimated the current demand at 1,450 tons based on the domestic production and imports of 1958 on the ground that the demand for 1959 will not differ from that in 1958. The estimates received from the producers ranged from 1,400 tons to 2,500 tons for 1959. These estimates were discussed at the public inquiry and a suggestion was made that the indigenous sales and imports for the two years 1957 and 1958 offered a better indication for the trend of consumption. The average of these figures for 1957 and 1958 is 1,700 tons which also was considered to be rather on the high side. After some discussion it was agreed that in view of the existing delivery schedules of major producers the current demand may be placed at around 1,600 tons.

7.3. As for the demand in future, the Development Wing has expressed the view that consumption would expand at an annual rate of at least 20 per cent. This rate of increase was regarded as too high by the representatives of the industry present at the public inquiry. While all agreed that availability of steel will become more favourable by 1962, it was pointed out that a proportion of the steel would be for structural use. However, the consensus of opinion was that while a 10 per cent increase would be a reasonable assumption for the next year or two, the rate should record a substantial improvement thereafter. On this basis, the requirements of grinding wheels were placed between 2,500 and 2,800 tons for 1962.

7.4. As indicated in paragraph 6.2 the existing capacity of the industry is about 2,900 tons. It appeals therefore that the existing capacity of the industry is adequate to meet the demand of consumers now and in the near future.

aw materials

8.1. The principal raw materials required for the manufacture of grinding wheels are (i) synthetic abrasive grains, and (ii) bonding materials. In the absence of indigenous production of synthetic abrasive grains, the industry has been importing its requirements from abroad. Since the last inquiry, Krishnalal Thirani and Co. has erected a plant at Calcutta which is expected to commence production of abrasive grains during the course of the current year. The capacity of the plant on single shift is 300 tons per annum and for the next three years it is expected to produce only aluminous oxide grains.

8.2. The consumption of abrasive grains per ton of grinding wheels ranges between 0·84 ton and 1·27 tons according to the pattern of production, efficiency of the factory, etc. On the basis of an average consumption of 1·17 tons of abrasive grains per ton of grinding wheels, the total requirements of the industry for its output of 1,600 tons in 1959 would be about 1,900 tons. During the public inquiry, the representative of Krishnalal Thirani and Co. stated that it expected to retain a part of the output of abrasive grains for its own use and offer the balance to other producers. It is clear that even if its factory worked three shifts at full capacity and its products were found suitable by other producers, it would be able to supply only a small portion of the requirements of the grinding wheels industry. For its requirements of aluminous oxide grains, to a large extent, and for its entire requirements of silicon carbide grains, the industry will have to depend on foreign sources for a considerable time in the future.

8.3. As stated in paragraph 1·2 producers of grinding wheels are allowed to import abrasive grains free of duty which for other purposes is assessed at 40 per cent *ad valorem*. This concession is subject to an undertaking by the manufacturers to produce within six months from the date of import or such extended period as the Collector of Customs may allow on good cause being shown, a certificate to the effect that the abrasive grains in question have been used in the manufacture of grinding wheels. We are informed that as a matter of practice the period is extended from time to time up to a total period of 2 years. It was represented by some producers that as the character of demand is apt to change materially from year to year, they are left with unused stocks of particular grits of grains beyond a period of 2 years even and, therefore, the time limit should be extended still further we have carefully considered this point. While recognising the difficulties of foreseeing demand for each of the numerous varieties of grinding wheels manufactured by the larger producers, we feel that by and large, a period of 2 years should be adequate for the purpose in view.

8.4. During the course of the inquiry, complaints of serious delays in the issue of import licences for abrasive grains were raised. We were informed by the representative of the Development Wing that under Public Notice No. 16 the validity of import licences for raw materials required by certain specified industries, including grinding wheels, has been extended to one year.

8.5. Grindwell Abrasives obtains its bonding materials of which there are 7 main types from Daka and Co., Thana. It claims to have developed new indigenous bonds of superior quality. As indicated in paragraph 4.4 Carborundum Universal has placed orders for equipment to manufacture vitrified bonds. We are informed that the bonds produced by this company would be strictly for its own use. Resinoid bonds are at present entirely imported. The Development Wing informs us that efforts are being made to locate indigenous capacity for supply of resins.

9. Quality

9.1. From the evidence received by us, it appears that the quality of indigenous grinding wheels continues to be satisfactory. About a score and a half consumers of grinding wheels who replied to our questionnaire and who include some of the leading engineering and manufacturing works in this country, expressed satisfaction with the quality. The Development Wing informs us that it has not received either favourable or adverse reports regarding the quality of the products of small units, which produce only non-precision grinding wheels.

9.2. During the public inquiry specific complaints received by us from a few users of grinding wheels were discussed. It was stated that while domestic wheels are suitable for rough and medium finish, they are not efficient for high finish internal grinding and cylindrical grinding. Among other defects, it was alleged that the indigenous wheels have a life of not more than 38 to 60 per cent as compared with that of imported wheels. It was represented on behalf of the producers that actual output from grinding wheels is a more proper test of quality than durability of wheels. In regard to one or two complaints raised by the representatives of certain consumers, the parties agreed to settle the issues by direct consultation and advice.

9.3. To meet complaints of their customers Carborundum Universal and Grindwell Abrasives have established a technical after-sales service to assist consumers in the selection of wheels and their proper use. Grindwell Abrasives has field representatives in important centres like

Madras, Bangalore, Jamshedpur, Calcutta, etc. These representatives are technically qualified and trained in the factory to advise the company's customers and canvas orders for the firm. Carborundum Universal has four representatives trained in India and U.K. who visit their consumers and process orders. The question of choice and proper use of wheels is highly complicated by the fact that the equipments and machineries in use in India are obtained from a number of countries each of which has its own specifications. The technical services provided by the industry are therefore a very vital and important factor in the progress and success of the industry.

10. Import control policy and imports.

10.1. *Import control policy.*—The import control policy pursued by Government in respect of grinding wheels and segments from January-June, 1957 is given below :—

(i) *January June,* 1957.—Established importers were allowed to import grinding wheels and segments on a quota basis at 16 per cent of one-half of their best year's imports with the stipulation that not more than 50 per cent of the face value of the licence or Rs. 500, whichever was higher, could be utilised for the import of grinding wheels of less than 24″ diameter and of more than 1/32″ but less than 9″ in thickness. Actual users were also issued licences. Diamond lapping wheels or grinding wheels impregnated with diamond dust were on Open General Licence for imports from soft currency areas.

(ii) *July-September,* 1957.—No fresh quota licence was issued to established importers. Further, diamond lapping wheels or grinding wheels impregnated with diamond dust were removed from O. G. L.

(iii) *October* 1957—*March* 1958.

(iv) *April-September* 1958.

(v) *October* 1958—*March* 1959.

(vi) *April-September* 1959.

During these four periods no licences were issued to established importers. Licences were, however, issued to actual users on an *ad hoc* basis. Imports of non-protected types of grinding wheels such as diamond lapping wheels were allowed to established importers on a quota basis. During the licensing periods October 1957—March 1958 and April-September, 1958 the quota was fixed at 66⅔ per cent of one half of the best year's imports. During October 1958—March 1959 the quota was reduced to 40 per cent and the reduced quota has been continued during the current licensing period also, *i.e.*, April-September, 1959.

10.2. *Imports.*—A statement showing figures of imports of grinding wheels, both protected and non-protected, during the last 2 years, as published in the Monthly Statistics of the Foreign Trade of India is given in Appendix III. The total imports during these years were 616·30 tons valued at Rs. 24,37,453 during 1957 and 164·85 tons valued at Rs. 10,38,661 during 1958. The largest source of supply was U.K. Separate statistics of imports are not available in respect of protected categories.

11. Exports

11.1. During the course of the public inquiry the possibilities of exports of grinding wheels were discussed. Grindwell Abrasives has already succeeded in exporting 1,200 lbs. of grinding wheels in the last 2 months of 1958, and 4,000 lbs. during the first 4 months of 1959. The exports were mainly absorbed in Nairobi, Kenya, Uganda, Tanganyika, Abyssinia and Aden. Inquiries have also been received by the company from other countries including Egypt and New Zealand.

11.2. Carborundum Universal is free to export off-hand grinding wheels under a trade mark other than that of its U.K. collaborator. For export of precision and specialised types, it requires the specific permission of its collaborator.

11.3. It was alleged that foreign competitors place their products abroad at prices which are substantially lower than what they quote in their domestic markets—to the extent of even 40 per cent. During the course of discussion, several suggestions to assist the export trade were considered. It was suggested that Government should take initiative in establishing import houses and other facilities in foreign countries. After some discussion, it was agreed that the proper course would be for the grinding wheels industry in concert with similar small industries to move appropriate trade organisations like Chambers of Commerce, Engineering Industries Association, etc. to formulate and devise measures in consultation with the Export Promotion Council and Government.

Existing rate of duty

12. Grinding wheels in the protected category are assessed to duty under Item No. 71(8) of the First Schedule to the Indian Tariff Act, 1934, the relevant extract from which is reproduced below:

Item No.	Name of article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the produce or manufacture of			Duration of protective rate of duty
				The U.K.	A British colony	Burma	
1	2	3	4	5	6	7	8
71 (8)	Grinding wheels and segments made of synthetic abrasive grains, excluding the following, namely,—	Protective	25 per cent *ad valorem*	..	..	..	December, 31st, 1959.
	(i) grinding wheels:						
	(a) of any thickness or bore but more than 24 inches in diameter, or						

1	2	3	4	5	6	7	8
	(b) of any diameter or bore but more than 9 inches or less than 1/32 inch in thickness ; and						
	(ii) diamond impregnated wheels.						

C. i. f. prices and landed costs.

13. We have received c.i.f. prices and landed costs of grinding wheels from the Collector of Customs, Bombay. These prices related, however, to types and sizes of wheels other than those for which we have computed fair ex-works prices. We have received from Carborundum Universal, Alfred Herbert (India) Pvt. Ltd., and the High Commission of India in U.K. current f.o.b. prices for wheels of U.K. manufacture comparable with those we have selected for costing. We have adopted U.K. prices furnished by Carborundum Universal for the purpose of assessing the quantum of protection since U.K. is our main source of supply and the prices furnished by the company are the lowest. The c.i.f. prices and landed costs of types and sizes selected for comparison with domestic costs are given below :

Sl. No.	Size	C.i.f. price	Landing charges @2½% on c.i.f.	Landed cost ex-duty
1	2	3	4	5
	Aloxite	Rs.	Rs.	Rs.
1	6"× 1"× ⅜"	6·38	0·16	6·54
2	7"× ½"×1¼"	5·47	0·14	5·61
3	12"× 1"× 1"	19·06	0·48	19·54
4	16"×1⅜"×1½"	45·04	1	46·17
5	20"× 2"× 8"	85·50	2·14	87·64
	White Aloxite			
6	7"× ½"×1½"	5·64	0·14	5·78
7	8"× ¾"× 2"	8·12	0·20	8·32
8	12"× 1"× 5"	19·75	0·49	20·24
9	14"× 1"× 5"	25·93	0·65	26·58
10	20"× 2"×12"	77·70	1·94	79·64

1	2	3	4	5
	Silicon Carbide	Rs.	Rs.	Rs.
11	6″× 1″× ¾″	7·04	0·18	7·22
12	8″× 1″× ⅝″	10·82	0·27	11·09
13	12″× 1″× 1″	21·16	0·53	21·69
14	16″×1½″×1½″	49·80	1·25	51·05
15	20″× 2″×1⅝″	98·15	2·45	100·60
	Green Silicon Carbide			
16	6″× 1″× ½″	7·04	0·18	7·22
17	8″× 1″× 1″	10·82	0·27	11·09
18	10″× 1″ ×1″	12·83	0·32	13·15
19	12″×1½″× 1″	29·24	0·73	29·97
20	14″× 3″× 5″ (R.B.S. 10″×1·1/16″)	72·01	1·80	73·81

14. Estimates of fair ex-works prices of indigenous grinding wheels.

14.1. For the purpose of our inquiry in 1957 our Cost Accounts Officer had examined the costs of production of Grindwell Abrasives and Carborundum Universal but for determining the quantum of protection, the costs of Carborundum Universal alone were adopted. At the time of the present inquiry, Grindwell Abrasives had suffered from a prolonged labour strike which rendered its costs unsuitable for our purpose. For this reason, Grindwell Abrasives was not costed this time. From our examination of the selling prices of different units, it is clear that except for white aloxite type the prices of Grindwell Abrasives are lower than those of Carborundum Universal. The selling prices of the smaller units are still lower. In adopting the costs of Carborundum Universal, therefore, there is no risk of overlooking the interests of the industry in general. The details of the cost data collected for Carborundum Universal are given in the Cost Report which is being forwarded as a confidential enclosure to this Report. The important particulars of costs are indicated below.

14.2. As stated in paragraph 6.2 Carborundum Universal has a capacity of 1,000 tons at present. Its production for the year ending August 1958 was 378·8 tons while for the 9 months ending May 1959, was 298 tons. It produces a large variety of non-precision and precision wheels which runs into as high a figure as 7,000. For the purposes of costing, four broad categories of vitrified off-hand grinding wheels were selected *viz.*, Aloxite, White Aloxite, Silicon Carbide and Green Silicon and in each category, five sizes were adopted. The period of costing covered the company's financial year from 1st September 1957 to 31st August 1958. The costed categories account roughly for 15 per cent of the total production.

14.3. For estimating future fair ex-works prices, an annual average output of 700 tons was adopted for the years 1959-62. The pattern of production was taken to be the same as for 1957-58. The estimated fair ex-works prices for the selected sizes and categories produced by the company are given below:

Statement showing the estimated fair ex-works prices for the selected sizes and categories of grinding wheels

Sl. No.	Size	Fair ex-works price
	Aloxite	Rs.
1	6″× 1″× ⅝″	5·73
2	7″× ½″×1½″	4·67
3	12″× 1″× 1″	19·50
4	16″×1½″×1½″	50·98
5	20″× 2″× 8″	80·83
	White Aloxite	
6	7″× ½″×1½″	4·80
7	8″× ¾″× 2″	6·89
8	12″× 1″× 5″	17·76
9	14″× 1″× 5″	28·08
10	20″× 2″×12″	65·04
	Silicon Carbide	
11	6″× 1″× ⅝″	7·64
12	8″× 1″ ×⅝″	11·62
13	12″× 1″× 1″	27·16
14	16″×1½″×1½″	67·11
15	20″× 2″×1⅝″	133·98
	Green Silicon Carbide	
16	6″× 1″ ×⅜″	7·63
17	8″× 1″× 1″	11·49
18	10″× 1″× 1″	18·95
19	12″× 1½″× 1″	35·99
20	14″× 3″× 5″ (R.B.S. 10″×1·1/16″)	94·12

14.4. In assessing fair ex-works prices, we have allowed working capital equivalent to four months' cost of production as against three months' allowed last time. The revision is justified by the available data regarding stocks of raw material, finished products, etc. In computing depreciation, additional investment of Rs. 7·7 lakhs under housing, equipment, etc. has been admitted. The company's plea for a higher cost of indigenous production of bonding material as against the prices of imported bonds could not be accepted as being hypothetical and unsubstantiated. A return of 10 per cent on employed capital has been allowed. A contingency allowance of 5 per cent to cover likely incidence of additional labour emoluments, increase in electricity tariffs, unforeseen shortfalls in output, etc. is included. It is assumed that the industry will continue to import its main raw material *viz.*, abrasive grains free of duty as in the past.

14.5. *Government purchases.*—In our last Report we gave reasons to explain why it is unrealistic to fix prices for rate contracts for Government purchases on the basis of costs worked out by us exclusively for the purposes of protection. We are informed that this practice still persists despite our recommendation. We would like to emphasise again that our fair ex-works prices are for off-hand grinding wheels of only a few selected types and the profitability of these types is no indication to the profitability of countless other types which involve much more labour, care and technical skill. Our estimates are based on assumptions regarding output, cost of raw materials, etc. which range over a period of three years and, therefore, may or may not materialise fully. We reiterate our recommendation made in the last Report that the fair ex-works prices estimated by us should not be the basis for rate contracts for Government purchases.

15 Comparison of fair ex-works prices of indigenous grinding wheels with landed costs of corresponding imported products.

15. The following statement compares the fair ex-works prices of selected types and sizes of grinding wheels as estimated by us with the calculated c.i.f. prices and landed costs ex-duty of the corresponding imported products.

Statement showing comparison of fair ex-works prices of indigenous grinding wheels with landed costs ex-duty of equivalent imported, products.

Sl. No.	Size	C.I.F. price	Landing charges at 2½% on c.i.f.	Landed cost ex-duty	Fair ex-works price	Difference between Cols. 5 and 6	Difference as a % on c.i.f.
1	2	3	4	5	6	7	8
	Aloxite	Rs.	Rs.	Rs.	Rs.	Rs.	%
1	6"× 1"× ⅝" . .	6·38	0·16	6·54	5·73	0·81	12·7

1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.	Rs.	Rs.	%
2	7″× ½″×1½″ . .	5·47	0·14	5·61	4·67	0·95	17·2
3	12″× 1″× 1″ . .	19·06	0·48	19·54	19·50	0·04	0·2
4	16″×1½″×1½″ . .	45·04	1·13	46·17	50·98	(—) 4·81	(—)10·7
5	20″× 2″× 8″ . .	85·50	2·14	87·64	80·83	6·81	8·0
	White Aloxite						
6	7″× ½″×1½″ . .	5·64	0·14	5·78	4·80	0·98	17·4
7	8″× ¾″× 2″ . .	8·12	0·20	8·32	6·89	1·43	17·6
8	12″× 1″× 5″ . .	19·75	0·49	20·24	17·76	2·48	12·6
9	14″× 1″× 5″ . .	25·93	0·65	26·58	28·08	(—) 1·50	(—) 5·8
10	20″× 2″×12″ . .	77·70	1·94	79·64	65·04	14·60	18·8
	Silicon Carbide						
11	6″× 1″× ⅝″ . .	7·04	0·18	7·22	7·64	(—) 0·42	(—) 6·0
12	8″× 1″× ⅝″ . .	10·82	0·27	11·09	11·62	(—) 0·53	(—) 4·9
13	12″× 1″× 1″ . .	21·16	0·53	21·69	27·16	(—) 5·47	(—)25·9
14	16″×1½″×1½″ . .	49·80	1·25	51·05	67·11	(—)16·06	(—)32·2
15	20″× 2″×1⅝″ . .	98·15	2·45	100·60	133·98	(—)33·38	(—)34·0
	Green Silicon Carbide						
16	6″× 1″× ¾″ . .	7·04	0·18	7·22	7·63	(—) 0·41	(—) 5·8
17	8″× 1″× 1″ . .	10·82	0·27	11·09	11·49	(—) 0·40	(—) 3·7
18	10″× 1″× 1″ . .	12·83	0·32	13·15	18·95	(—) 5·60	(—)43·6
19	12″×1½″× 1″ . .	29·94	0·73	29·97	35·99	(—) 6·02	(—)20·6
20	14″× 3″× 5″ . (R.B.S. 10″×1·1/16″) .	72·01	1·80	73·81	94·12	(—)20·31	(—)28·2

16. Measure of protection.

16.1. It will be seen from the above table that barring two items *viz.*, 16″ × 1½″ × 1½″ in the aloxite group and 14″ × 1″ × 5″ in the white aloxite group, grinding wheels of sizes included in the two groups are not in need of protection. The advantage enjoyed by them over the equivalent imported products ranges from 0·2 per cent to 18·8 per cent. Silicon carbide and green silicon carbide grinding wheels and the two sizes in the aloxite and white aloxite groups mentioned above are at a disadvantage and duties required to equate their fair ex-works prices with landed costs ex-duty of imported products vary from 3·7 per cent to 43·6 per cent according to the type and size of the wheel. For estimating the quantum of protection required by the industry as a whole, we have computed the aggregate advantage or disadvantage of the industry on the basis of weights indicated by the production of each type of grinding wheels. The net weighted average is in favour of the industry to the extent of 3·3 per cent. The industry as a whole, therefore, is not in need of any protection. Under the shelter of protection enjoyed by it for the last about 11 years, the industry has achieved considerable progress both in the volume of its output and the quality of its products. Nearly all popular types of grinding wheels are now manufactured in the country, the exceptions being a few types such as rubber bonded grinding wheels which are not yet manufactured indigenously. The present capacity of the industry is adequate to meet the domestic demand now and in the near future and the industry has certain plans to expand its capacity and diversify the range of its production. Carborundum Universal proposes to extend its production of grinding wheels up to 42″ in diameter and has also plans to increase its capacity to 1,800 tons a year. Grindwell Abrasives also has plans to double its capacity from the existing 1,200 tons to 2,500 tons a year. When these expansion programmes materialise, it should be possible for the industry to effect appreciable reductions in their cost of manufacture. The quality of the domestic products has been, by and large, found acceptable by consumers. The industry is having sheltered market through import control and in the context of our present foreign exchange position, we do not foresee any early possibility of import control being so liberalised as to jeopardise the interests of the domestic industry. In view of these considerations, we have come to the conclusion that the industry does not require continuance of protection for a further period. We, therefore, recommend that protection granted to the industry need not be continued beyond 31st December 1959. With effect from 1st January 1960 Government may impose revenue duty on grinding wheels at such level as they deem necessary for fiscal purposes, keeping in view the overriding consideration that an industrial product of this type, used as processing material by all engineering industries should attract a low rate of duty.

16.2. Our recommendation for discontinuance of protection is based on the assumption that manufacturers of grinding wheels will be allowed to import synthetic abrasive grains free of duty. Since the bulk of cost of production is accounted for by the cost of abrasive grains, withdrawal of duty-free concession on their imports and imposition of a customs duty of 40 per cent *ad valorem* will inflate the cost of manufacture appreciably. Secondly, the price advantage which the indigenous industry enjoys over imported wheels relates to only a few popular sizes of off-hand wheels. The present tendency is however more and more towards precision and specialised wheels, the production of which needs skilled workmanship, time and labour. Wastage of raw materials in their case is also higher. Withdrawal of duty-free concession on synthetic grains would raise the prices of such wheels to a high level and this would have a depressing effect on their production. This will be highly detrimental to the further development of the indigenous industry. Further, it is desirable that the cost of an essential tool of production like grinding wheel which finds its use in a large number of engineering industries should be kept down to the minimum. For this purpose, it is necesary that its raw material should be made available to the industry at as low a price as possible. We have also examined the financial results of the working of Carborundum Universal which was costed for the purpose of the present inquiry and are satisfied that the profits made by it are not unreasonable. We, therefore, recommend that the concession at present enjoyed by the industry of importing synthetic abrasive grains duty-free should be extended for a further period until abrasive grains of suitable quality are indigenously produced in sufficient quantity and at a reasonable price.

Summary of conclusions and recommendations

17. Our conclusions and recommendations are summarised below :

(i) The current annual demand for grinding wheels may be placed at around 1,600 tons. The demand may increase to 2,500 to 2,800 tons by 1962.

[Paragraphs 7.2 and 7.3]

(ii) The fair ex-works prices estimated by the Commission for determining the quantum of protection required by the industry should not be the basis for rate contracts for Government purchases.

[Paragraph 14.5]

(iii) Protection granted to the grinding wheels industry need not be continued beyond 31st December 1959.

[Paragraph 16.1]

(iv) The concession at present enjoyed by the grinding wheels industry of importing synthetic abrasive grains duty-free should be extended for a further period until abrasive grains of suitable quality are indigenously produced in sufficient quantity and at a reasonable price.

[Paragraph 16.2]

Acknowledgements

18. We wish to express our thanks to the manufacturers, importers and consumers of grinding wheels who furnished us with valuable information and to their representatives who gave evidence before us

C. RAMASUBBAN,
Chairman.

S. K. MURANJAN,
Member.

J. N. DUTTA,
Member.

R. S. BHATT,
Member.

RAMA VARMA,
Secretary,

BOMBAY ;
Dated, 31*st July*, 1959.

APPENDIX I

(*Vide* PARAGRAPH 3.1)

List of firms/bodies/Government Departments to whom the Commission's questionnaires or letters were issued and from whom replies or memoranda were received.

*Indicates those who have replied or sent memoranda.

†Indicates those who are not interested.

(A) *Producers :*

*1. Carborundum Universal Ltd., P.B. No. 1677, 52/53 Jehangir Street, Madras-1.

*2. Grindwell Abrasives Ltd., P.B. No. 78, Bombay-1.

*3. General Abrasive Company Pvt. Ltd., Patel Estate, Goregaon East, Bombay.

*4. Steel and General Mills Co. Ltd., 3, Cavalry Line, Delhi-8.

*5. Thermal Products Co., Chandiwela Plot, John Baptist Road, Near Santan Periera's Bakery, Bandra, Bombay-20.

*6. Krishnalal Thirani & Co. Ltd., Ilaco House, 1 & 3 Brabourne Road, Calcutta-1.

7. Mistry Hem Raj Jagan Nath, Rakhi House, Jodhpur.

(B) *Importers :*

†1. Thirathdas Keshoram, 130, Narayan Dhuru Street, Bombay-3.

*2. Alfred Herbert (India) Private Ltd., 13/3, Strand Road, Calcutta-1.

3. Orient General Agencies, Hamilton Road, Delhi-6.

4. Bal Swarup Bhatnagar Ltd., Kamboohan Street, Firozabad (U.P.).

*5. William Jacks and Co. Ltd., P.B. No. 369, Calcutta.

6. Scott and Pickstock Private Ltd., 5, Fairlie Place, Calcutta-1.

7. Bashimal Tirathram, 72, Bhajipala Lane, Bombay-3.

†8. H. S. Cox & Co. Private Ltd., 24, Rampart Row, Bombay-1.

(C) *Consumers :*

*1. Controller of Stores, Central Railway, Victoria Terminus, Bombay-1.

*2. Controller of Stores, Western Railway, General Offices, Churchgate, Bombay-1.

*3. Controller of Stores, Northern Railway, Baroda House, New Delhi.

*4. Controller of Stores, Eastern Railway, Fairlie Place, Calcutta.

*5. General Manager, Southern Railway, Headquarters Office (Store Branch), Aynavaram (Perambur), Madras-23.

*6. Alcock Ashdown & Co., Ltd., 16, Bank Street, Fort, Bombay-1.

*7. Bhartia Electric Steel Co. Ltd., 4, Old Court House Street, Calcutta-1.

*8. Braithwaite & Co. (India) Ltd., Hide Road, Kidderpore, Calcutta-23.

*9. Burn and Co. Ltd., Post Box No. 2, Howrah.

*10. Hyderabad Construction Co. Ltd., P.B. No. 109, Hyderabad.

*11. Indian Standard Wagon Co. Ltd., Santa Works, P.O. Burnpur (S.E.R.), Dist. Burdwan.

*12. Jessop & Co. Ltd., 63, Netaji Subhas Road, Calcutta-1.

*13. Kamani Metals & Alloys Ltd., Kamani Chambers, Nicol Road, Ballard Estate, Bombay-1.

*14. Larsen and Toubro Ltd., I.C. House, Dougall Road, Ballard Estate, Bombay-1.

*15. Machinery Manufacturer's Corporation Ltd., P-61, Circular Garden Reach Road, Kidderpore, Calcutta-23.

16. Mukand Iron & Steel Works Ltd., Agra Road, Kurla, Bombay.

17. National Iron & Steel Co. Ltd., Stephen House, 4, Dalhousie Square, Calcutta-1.

*18. Praga Tools Corporation Ltd., 17, Saifabad, Hyderabad Dn.

*19. Walchandnagar Industries Ltd., Construction House, Ballard Estate, Bombay-1.

*20. Richardson and Cruddas Ltd., Byculla Iron Works, Bombay-8.

*21. Tata Iron & Steel Co. Ltd., Bombay House, Bruce Street, Bombay-1.

*22. Director General, Ordnance Factories, 6, Esplanade East, Calcutta-1.

*23. Hindustan Gas Co. Ltd., 22, New Tangra Road, Calcutta-15.

*24. Hind Razor and Blade Co. Pvt. Ltd., Industrial Assurance Building, Opp. Churchgate, Bombay-1.

*25. Godrej and Boyce Mfg. Co. Pvt. Ltd., Lalbaug, Parel, Bombay-12.

*26. Gresham and Craven of India Ltd., 22, Gobra Road, Entally, Calcutta-14.

*27. Indian Jute Mills Association, Royal Exchange, Calcutta.

*28. National Machinery Manufacturers Ltd., Kalve, Thana.

*29. The Metal Box Co. of India Ltd., Barlow House, Chowringhee, Calcutta-20.

*30. The Indian Tool Manufacturers Ltd., 101, Sion Road, Sion, Bombay-22.

*31. Machine Tool Prototype Factory, Ambarnath, Central Railway.

*32. National Engineering Industries Ltd., Jaipur.

*33. The Secretary, Railway Board, New Delhi.

*34. Hindustan Machine Tools Ltd., Jalahalli, P.O. Bangalore.

*35. Hindustan Shipyard Private Ltd., Gandhigram, Visakhapatnam.

*36. Hindustan Aircraft Pvt. Ltd., Hindustan Aircraft Post, Bangalore.

*37, Chittaranjan Locomotive Works, Chittaranjan (W. Bengal).

*38. Hind Cycles Ltd., 250, Worli, Bombay-18.

*39. Hindustan Motors Ltd., 8, India Exchange Place, Calcutta-1.

*40. British India Electric Construction Co. Ltd., 6, Mayurbhanj Road, Calcutta-23.

*41. T. I. Cycles of India Ltd., Ambattur, Near Madras.

*42. Textile Machinery Corp. Ltd., 8, India Exchange Place, Calcutta.

*43. Sen-Raleigh Industries of India Ltd., Mercantile Buildings, Lallbazar, Calcutta-1.

*44. Premier Automobiles Ltd., Agra Road, Kurla, Bombay-37.

*45. Standard Motor Products of India, 29, Mount Road, Madras-2.

*46. Kirloskar Bros. Ltd., Kirloskarwadi, South Satara.

*47. Jay Engineering Works Ltd., 183A, Prince Anwar Shah Road, Dhakuria, Calcutta-31.

*48. Guest, Keen, Williams, Ltd., 41, Chowringhee Road, Calcutta-16.

*49. Indian Iron & Steel Co. Ltd., 12, Mission Row, Calcutta.

*50. India Pistons (Pvt.) Ltd., "Huzur Gardens", Sembiam, Madras-11.

*51. Investa Machine Tools & Eng. Co. Ltd., Clerk Road, Pais Street, Bombay-11.

*52. India Machinery Co. Ltd., 29, Strand Road, Calcutta.

*53. Tinplate Co. of India Pvt. Ltd., Golmuri Works, Golmuri, Singhbhum

*54. Cooper Engineering Ltd., Satara Road.

*55. The Acme Mfrg. Co. Ltd., Antop Hill, Wadala, P. B. No. 7102, Bombay-31.

*56. Controller of Stores, Bombay State Road Transport Corporation, Bombay Central, Bombay.

*57. Mahindra and Mahindra Ltd., Gateway Building, Apollo Bunder, Bombay-1.

*58. Associated Cement Co. Ltd., Cement House, 121, Queen's Road, Bombay-1.

(D) *Government Departments :*

*1. The Senior Industrial Adviser (Engineering), Ministry of Commerce & Industry, Development Wing, Udyog Bhavan, King Edward Road, New Delhi.

*2. The Director General of Supplies and Disposals, Shahjahan Road, New Delhi.

*3. The Collector of Customs, Bombay.

*4. The Collector of Customs, Madras.

*5. The Collector of Customs, Calcutta.

*6. The Secretary, Council of Scientific and Industrial Research, Old Mill Road, New Delhi.

*7. The Director, Indian Standards Institution, Manak Bhavan, 9, Mathura Road, New Delhi.

*8. The Minister (Economic) to the High Commission for India in U.K., Commerce Department, India House, Aldwych, London W. C. 2.

9. The First Secretary (Commercial) to the Embassy of India in Germany, 262, Koblenzer Strasse, Bonn (West Germany).

APPENDIX II

(*Vide* PARAGRAPH 3.4)

List of persons who attended the Commission's public inquiry on 29th June, 1959.

(A) *Producers :*

1. Shri N. D. Sidhwa 2. Shri K. J. Daruwalla 3. Mr. G. Ostermeyer 4. Shri N. R. Kalyaniwalla 5. Mr. G. L. Lewis	Representing	Grindwell Abrasives Ltd., Army & Navy Building, Mahatma Gandhi Road, Bombay-1.
6. Shri M. V. Arunachalam 7. Mr. Ivor Mann 8. Shri R. H. Iyer	Do.	Carborandum Universal Ltd., 52/53, Jehangir Street, Madras-1.
9. Shri P. S. Raja Rao	Do.	Steel and General Mills Co. Ltd., 3, Cavalary Line, Delhi-8.
10. Shri A. K. Contractor 11. Shri N. Aaron	Do.	Thermal Products Co., Chandiwala Plot, John Baptist Road, Near Santan Pariera's Bakery, Bandra, Bombay-20.
12. Shri V. S. Patel 13. Shri I. D. Udeshi 14. Shri M. M. Gadre	Do.	General Abrasive Company Pvt. Ltd., Patel Estate, Goregaon East, Bombay.
15. Shri B. K. Thirani	Do.	Krishnalal Thirani & Co. Ltd., Ilaco House, 1 & 3, Brabourne Road, Calcutta-1.

(B) *Importers*.

16. Mr. J. H. Writer	Do.	William Jacks & Co. Ltd., Hamilton House, Ballard Estate, Bombay-1.

(C) *Consumers* :

17. Mr. J. W. Guffogg 18. Mr. A. J. Lobo	Do.	National Machinery Mfrs. Ltd., Kalwe, Thana.
19. Shri W. N. Kamath	Do.	India Pistons (Pvt.) Ltd., "Huzur Gardens", Sembiam, Madras.
20. Shri R. S. Pai 21. Shri S. C. Boga	Do.	Metal Box Co. of India Ltd., 249, Worli Road, Worli, Bombay-18.

22. Shri S. K. Madan	Representing	Director General, Ordnance Factories, 6, Esplanade East, Calcutta-1.
23. Shri M. V. Joshi	Do.	Hind Razor & Blade Co. Pvt. Ltd., Industrial Building, Churchgate, Bombay-1.
24. Shri T. C. Chadda	Do.	Chittaranjan Locomotive Works, Chittaranjan, (West Bengal).

(D) *Government Departments :*

25. Shri P. R. Latey	Do.	Development Wing, Ministry of Commerce & Industry, King Edward Road, New Delhi.
26. Shri A. B. Rao	Do.	Indian Standards Institution, 'Manak Bhavan, 9, Mathura Road, New Delhi-1.
27. Shri G. J. Makhijani . . .	Do.	Collector of Customs, New Custom House, Bombay-1.

APPENDIX III

(*Vide* PARAGRAPH 10.2)

Statement showing imports of grinding wheels of all types including diamond impregnated wheels, grinding wheels natural stone, grinding stones etc. during 1957 *and* 1958

Sl. No.	Name of the article	Country of origin	1957		1958	
			Quantity (Cwts.)	Value (Rs.)	Quantity (Cwts.)	Value (Rs.)
1	2	3	4	5	6	7
1.	*Diamond Impregnated Wheels.*	U.K.	13	34,280	1	14,778
		Western Germany	3	858	..	2,879
		Hungary	4	490	..	..
		U.S.A.	..	500	..	..
		TOTAL	20	36,128	1	17,657
2.	*Grinding Wheels Natural Stone.*	U.K.	203	73,185	43	12,296
		U.S.S.R.	74	5,846	..	..
		Western Germany	47	10,303	1	158
		Italy	..	39	..	..
		Austria	4	950	..	..
		Czechoslovakia	2	999	..	318
		Hongkong	5	964	..	..
		Japan	5	842	..	..
		Belgium	..	..	4	345
		U.S.A.	..	..	..	394
		TOTAL	340	93,128	48	13,511
3.	*Wheel Synthetic Abrasive Grains over 21" dia.*	U.K.	2,086	540,452	1,025	259,004
		Poland	8	868	..	..
		Denmark	2	680	5	1,283
		Western Germany	606	139,019	372	118,289
		Belgium	85	17,492	..	..
		Switzerland	2	2,620	23	18,133

1	2	3	4	5	6	7
		Austria	..	..	5	1,486
		Italy	2	403	..	..
		U.S.A.	1	252	2	1,491
		Norway	..	..	..	300
		Netherlands	..	..	5	486
		TOTAL	2,792	701,786	1,437	400,452
4.	*Wheel Synthetic Abrasive Grains over 7½″ thick.*	U.K.	324	81,564	62	21,774
		Western Germany	57	21,851	6	3,882
		Belgium	47	11,526	..	..
		Switzerland	6	6,194	..	..
		Hongkong	7	989	..	..
		Japan	..	432	..	..
		U.S.A.	10	1,023	..	..
		Italy	..	..	..	45
		TOTAL	451	123,579	68	25,701
5.	*Wheel Synthetic Abrasive Grains over 12½″ bore*	U.K.	148	51,800	9	4,390
		Western Germany	10	20,523	..	..
		Belgium	11	2,602	..	..
		Switzerland	..	258	..	..
		Italy	..	172	..	..
		Czechoslovakia	..	165	..	..
		Canada	..	50	..	65
		U.S.A.	..	196	2	98
		Sweden	..	..	..	33
		TOTAL	169	75,766	11	4,586

1	2	3	4	5	6	7
6.	*Wheels Segments of Synthetic Abrasive Grains not otherwise Specified.*	U. K. . .	4,068	5,98,445	245	1,03,143
		U.S.S.R. . .	610	45,535	272	24,492
		Sweden . .	..	8,992	..	..
		Poland . .	38	4,698	15	2,131
		Western Germany	661	2,12,203	541	2,07,403
		Netherlands .	1	161	..	..
		Belgium . .	154	32,770	19	4,943
		Italy . . .	17	96	19	16,319
		Austria . .	30	16,733	9	2,560
		Hungary .	103	13,158	74	8,918
		Czechoslovakia .	11	2,785	4	703
		Hongkong .	7	1,304	..	..
		Japan . .	..	79	..	..
		Switzerland .	..	..	38	31,673
		U.S.A. . .	34	7,478	45	10,604
		Denmark . .	..	..	12	576
		France . .	..	..	2	5,754
		TOTAL .	5,734	9,44,437	1,295	4,19,219
7.	*Grinding Stone* .	U. K. . .	115	27,480	5	1,185
		Poland . .	16	200	..	..
		Denmark . .	5	8,694	1	3,520
		Western Germany	208	21,421	16	1,784
		Netherlands .	..	911	..	..
		Belgium . .	11	5,177	..	..
		Switzerland .	3	3,507	..	..
		Austria . .	..	34	..	..
		Burma . .	..	10	..	..
		Japan . .	..	406	1	381
		U.S.A. . .	6	15,530	6	19,485
		Singapore . .	..	..	..	1
		TOTAL .	364	83,370	29	26,356

1	2	3	4	5	6	7
8. *Others* . . .		U. K. . .	1,178	2,62,794	260	65,732
		Denmark . .	1	230	10	24,383
		Western Germany	249	62,448	74	28,621
		Belgium . .	16	7,185	..	..
		Switzerland .	1	358	..	..
		Italy . . .	4	581	3	1,117
		Czechoslovakia .	8	7,119	7	4,905
		Greece . .	797	22,882	..	..
		Hongkong . .	3	106	3	59
		Japan . .	197	14,259	29	1,429
		Netherlands .	..	..	..	40
		U. S. A. . .	2	1,297	1	686
		Norway . .	..	..	13	3,454
		Poland . .	..	..	8	753
		TOTAL .	2,456	3,79,259	408	1,31,179
	Grand Total of all items	.	12,326 (616·30 Tons)	24,37,453	3,297 (164·85 Tons)	10,38,661

GIPN—S6—7 T. C. Bom./59—12-2-60—480.

REPORT ON AUTOMOBILE HAND TYRE INFLATOR INDUSTRY

Origin of the case

1. In paragraph 12 (e) of its Report on the Automobile Industry (1953), the Tariff Commission stated that the case of each ancillary industry which had furnished information and asked for protection or assistance in various forms would have to be examined separately before any conclusion could be reached or recommendation made about the eligibility of the industry for protection, the quantum of protection required and the nature of protection or assistance which should be given. The Commission carried out cost investigations into certain ancillary industries with a view to examining their claims for protection or assistance. The Commission in its letter No. TC/ID/E/88 Comp., dated 6th August 1953 to the Ministry of Commerce and Industry stated that it proposed to complete its examination of the cases of those ancillary industries in respect of which cost investigations had already been carried out and to submit reports on their claims to protection or assistance. One of these ancillary industries was the Hand tyre inflator industry and the inquiry into this industry was accordingly undertaken by the Commission under Section 11 of the Tariff Commission Act, 1951.

Method of inquiry

2. (a) On 16th November 1953, the Commission issued a questionnaire to the known producers of automobile hand tyre inflators. Special questionnaires were issued to Associations of merchants and manufacturers of automobile accessories, consumers and importers of hand tyre inflators and producers of raw materials. The Chief Industrial Adviser, Ministry of Commerce and Industry (Development Wing), Government of India, was requested to furnish a memorandum on the present position of the industry and on the desirability of granting protection to it. The Director General of Supplies and Disposals, Government of India, was also addressed to furnish information regarding the quality of the indigenous hand tyre inflators, availability of the raw materials and the demand for hand tyre inflators by Government departments. The State Governments were requested to give their views on the question of granting protection or assistance to this industry and to furnish information regarding its present position in their respective areas. Data regarding c.i.f. prices of the different types of automobile hand tyre inflators, and quantity and value of imported hand tyre inflators were obtained from Collectors of Customs. The Director General of Commercial Intelligence and Statistics was addressed for information regarding the quantity and value of automobile hand tyre inflators imported into the country during the last three years. The Indian Standards Institution was requested to furnish information regarding standards, if any, for automobile hand tyre inflators. A list of persons or bodies to whom the questionnaires were issued and from whom replies or memoranda were received is given in Appendix I.

(b) On 18th November 1953, the Commission issued a Press Communique requesting Associations and persons desiring to express their views on the question of granting protection or assistance to the automobile hand tyre inflator industry to forward their representations to the Commission for consideration.

(c) Mr. W. R. Vorwig, who assisted the Commission in its inquiry into the Automobile Industry as an automobile expert, visited the factory of Union Company (Accessories) Ltd., Madras, on 6th November, 1952. In connection with the present inquiry, Shri C. Ramasubban, Member, Tariff Commission, visited the factory of Union Co. (Accessories) Ltd., Madras, on 16th March 1954, and discussed with the representatives of the firm the various problems of the industry.

(d) Shri N. Krishnan, Cost Accounts Officer, had visited the factory of Union Co. (Accessories) Ltd., Madras, on 18th December, 1952 in connection with the inquiry into the automobile industry and examined the costs of production of hand tyre inflators manufactured by them. In connection with the present inquiry, Shri A. K. Gopalan, Assistant Cost Accounts Officer, visited the same factory from 23rd to 26th June 1954, and carried out investigation into the costs of production of hand tyre inflators with rubber connections produced by the Company.

(e) A public inquiry was held on 27th August, 1954 at the office of the Commission in Bombay. A list of persons who attended the inquiry is given in Appendix II.

Scope of the inquiry

3. Hand tyre inflators are used for automobiles as well as for motor cycles and bicycles. The question as to whether the scope of the inquiry should include tyre inflators operated by hand as well as by foot required for all kinds of vehicles with pneumatic tyres was discussed at the public inquiry and we decided that the scope of the inquiry should be confined to hand operated tyre inflators of all types adapted for use as accessories of motor vehicles.

Description and use of the product

4. (a) The common type of hand tyre inflator is known by the trade name "Pump No. 2". It consists of a barrel of seamless solid drawn brass tube which has a bottom cup machined and sweated. There is an outlet at the side of the cup to take in a screwed solid connector hexagonal in shape. The top of the barrel is closed with a screwed cap which has a gland for the pump rod. The rod is made from free cutting bright steel and at its bottom is fitted a leather bucket which acts as a piston to compress and pump air, while at the top end of the rod is fitted a wooden handle for operating the pump. The rubber connection is of two ply construction 30 inches long and $\frac{3}{8}$ inch thick. A solid connector, hexagonal in shape which is fitted to one end of the connection, is screwed to the bottom cup of the pump. The other end of the tube is fitted with an universal lever connector which can be fitted to the valve head of an automobile tube with the lever in one position, and to the valve head of a bicycle tube with the lever in the alternative position.

(b) Barrels of welded or brazed brass or mild steel tubes are also used for manufacturing hand tyre inflators. There are variations in the sizes of the inflators, some of which are 17, 15 or 14 inches in length. Small sized steel or brass inflators are usually made according to the orders of automobile manufacturers who supply them as accessories of motor vehicles sold by them.

(c) The bulk of the demand by users of automobiles is for "Pump No. 2" inflators. These inflators are purchased by owners of